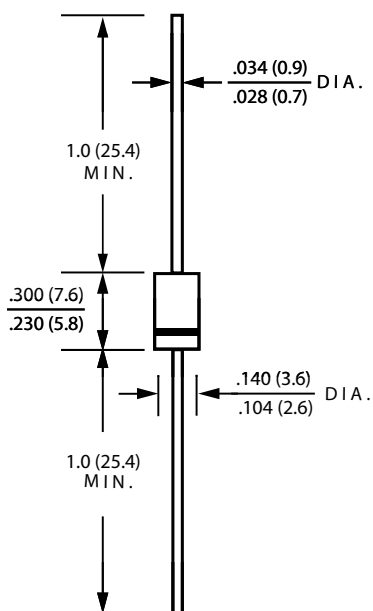




DO-15

Dimensions in inches and (millimeters)



Ordering Information

Part Number	Remark
3EZxxxD5	General
3EZxxxD5-H	Halogen Free

PRIMARY CHARACTERISTICS

V_{RRM}	6.2~200V
V_F	1.5V
$T_J \text{ max}$	175°C

FEATURES

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Lead (Pb)-free component
- For use in stabilizing and clipping circuits with high power rating

Mechanical Data

- Case: DO-15
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Weight: 0.373grams (approximate)

Absolute Maximum Ratings

Parameter	Symbol	Value	UNIT
DC Power Dissipation at $T_L = 50^\circ\text{C}$ (Note1)	P_D	3.0	W
Maximum Forward Voltage at $I_F = 200 \text{ mA}$	V_F	1.5	V
Junction Temperature Range	T_J	- 55 to + 175	°C
Storage Temperature Range	T_{STG}	- 55 to + 175	°C

Note: T_L = Lead temperature at 3/8 " (9.5mm) from body.

3 Watt Zener Diodes / DO-15

Part Number	Nominal Zener Voltage		Max. Zener Impedance				Max. Reverse Leakage Current		Max. DC Zener Current	Marking Code
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	Nom. V	mA	Ω	mA	Ω	mA	μA	V	mA	
3EZ6.2D5	6.2	121.0	1.5	121.0	700	1.0	5.0	3.0	435	3EZ6.2D5
3EZ6.8D5	6.8	110.0	2.0	110.0	700	1.0	5.0	4.0	393	3EZ6.8D5
3EZ7.5D5	7.5	100.0	2.0	100.0	700	0.5	5.0	5.0	360	3EZ7.5D5
3EZ8.2D5	8.2	91.0	2.3	91.0	700	0.5	5.0	6.0	330	3EZ8.2D5
3EZ9.1D5	9.1	82.0	2.5	82.0	700	0.5	3.0	7.0	297	3EZ9.1D5
3EZ10D5	10.0	75.0	3.5	75.0	700	0.25	3.0	7.6	270	3EZ10D5
3EZ11D5	11.0	68.0	4.0	68.0	700	0.25	1.0	8.4	225	3EZ11D5
3EZ12D5	12.0	63.0	4.5	63.0	700	0.25	1.0	9.1	246	3EZ12D5
3EZ13D5	13.0	58.0	4.5	58.0	700	0.25	0.5	9.9	208	3EZ13D5
3EZ14D5	14.0	53.0	5.0	53.0	700	0.25	0.5	10.6	193	3EZ14D5
3EZ15D5	15.0	50.0	5.5	50.0	700	0.25	0.5	11.4	180	3EZ15D5
3EZ16D5	16.0	47.0	5.5	47.0	700	0.25	0.5	12.2	169	3EZ16D5
3EZ17D5	17.0	44.0	6.0	44.0	750	0.25	0.5	13.0	159	3EZ17D5
3EZ18D5	18.0	42.0	6.0	42.0	750	0.25	0.5	13.7	150	3EZ18D5
3EZ19D5	19.0	40.0	7.0	40.0	750	0.25	0.5	14.4	142	3EZ19D5
3EZ20D5	20.0	37.0	7.0	37.0	750	0.25	0.5	15.2	135	3EZ20D5
3EZ22D5	22.0	34.0	8.0	34.0	750	0.25	0.5	16.7	123	3EZ22D5
3EZ24D5	24.0	31.0	9.0	31.0	750	0.25	0.5	18.2	112	3EZ24D5
3EZ27D5	27.0	28.0	10	28.0	750	0.25	0.5	20.6	100	3EZ27D5
3EZ28D5	28.0	27.0	12	27.0	750	0.25	0.5	21.0	96	3EZ28D5
3EZ30D5	30.0	25.0	16	25.0	1000	0.25	0.5	22.5	90	3EZ30D5
3EZ33D5	33.0	23.0	20	23.0	1000	0.25	0.5	25.1	82	3EZ33D5
3EZ36D5	36.0	21.0	22	21.0	1000	0.25	0.5	27.4	75	3EZ36D5
3EZ39D5	39.0	19.0	28	19.0	1000	0.25	0.5	29.7	69	3EZ39D5
3EZ43D5	43.0	17.0	33	17.0	1500	0.25	0.5	32.7	63	3EZ43D5
3EZ47D5	47.0	16.0	38	16.0	1500	0.25	0.5	35.6	57	3EZ47D5
3EZ51D5	51.0	15.0	45	15.0	1500	0.25	0.5	38.8	53	3EZ51D5
3EZ56D5	56.0	13.0	50	13.0	2000	0.25	0.5	42.6	48	3EZ56D5
3EZ62D5	62.0	12.0	55	12.0	2000	0.25	0.5	47.1	44	3EZ62D5
3EZ68D5	68.0	11.0	70	11.0	2000	0.25	0.5	51.7	40	3EZ68D5
3EZ75D5	75.0	10.0	85	10.0	2000	0.25	0.5	56.0	36	3EZ75D5
3EZ82D5	82.0	9.1	95	9.1	3000	0.25	0.5	62.2	33	3EZ82D5
3EZ91D5	91.0	8.2	115	8.2	3000	0.25	0.5	69.2	30	3EZ91D5
3EZ100D5	100	7.5	160	7.5	3000	0.25	0.5	76.0	27	3EZ100D5
3EZ110D5	110	6.8	225	6.8	4000	0.25	0.5	83.6	25	3EZ110D5
3EZ120D5	120	6.3	300	6.3	4500	0.25	0.5	91.2	22	3EZ120D5
3EZ130D5	130	5.8	375	5.8	5000	0.25	0.5	98.8	21	3EZ130D5
3EZ140D5	140	5.3	475	5.3	5000	0.25	0.5	106.4	19	3EZ140D5
3EZ150D5	150	5.0	550	5.0	6000	0.25	0.5	114.0	18	3EZ150D5
3EZ160D5	160	4.7	625	4.7	6500	0.25	0.5	121.6	17	3EZ160D5

3 Watt Zener Diodes / DO-15

Part Number	Nominal Zener Voltage		Max. Zener Impedance				Max. Reverse Leakage Current		Max. DC Zener Current	Marking Code
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	Nom. V	mA	Ω	mA	Ω	mA	μA	V	mA	
3EZ170D5	170	4.4	650	4.4	7000	0.25	0.5	130.4	16	3EZ170D5
3EZ180D5	180	4.2	700	4.2	7000	0.25	0.5	136.8	15	3EZ180D5
3EZ190D5	190	4.0	800	4.0	8000	0.25	0.5	144.8	14	3EZ190D5
3EZ200D5	200	3.7	875	3.7	8000	0.25	0.5	152.0	13	3EZ200D5

Notes :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent

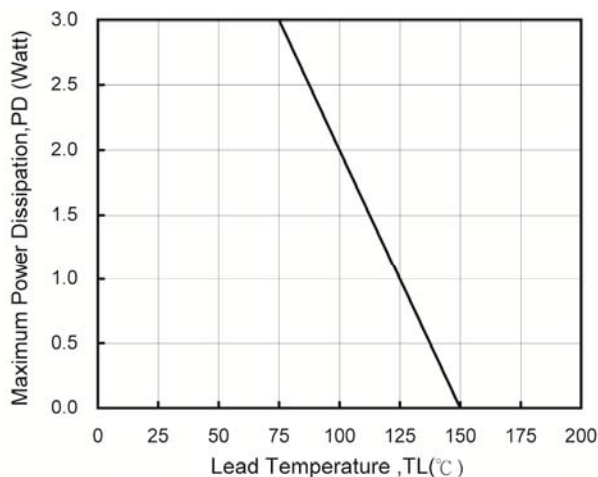


Fig. 1 - Power Temperature Derating Curve

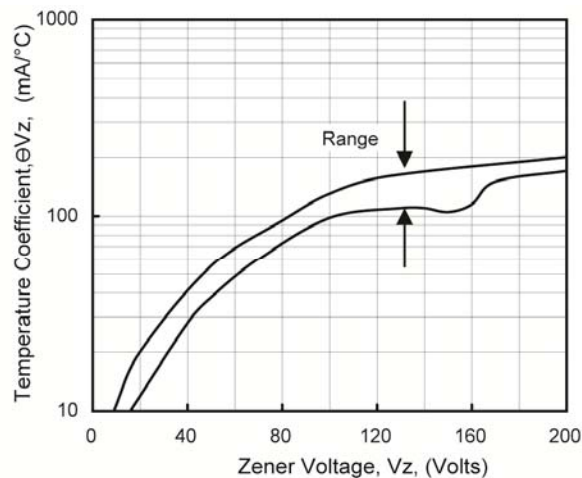


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

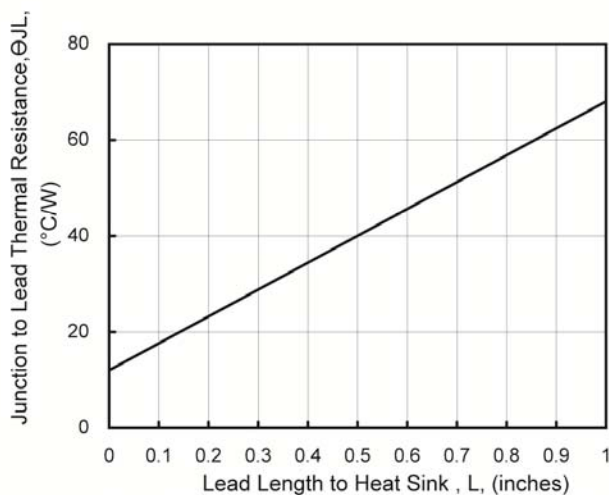


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

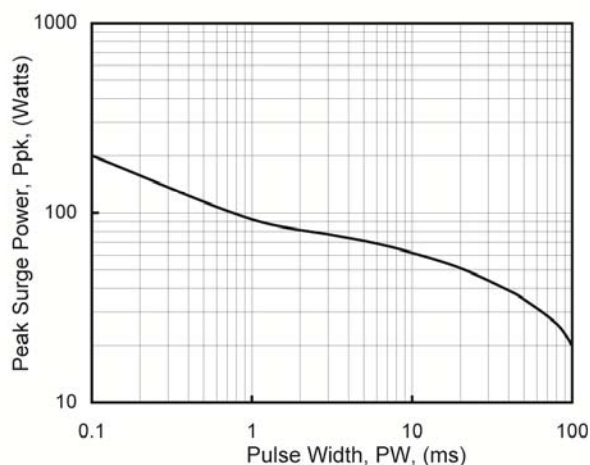


Fig. 4 - Maximum Surge Power

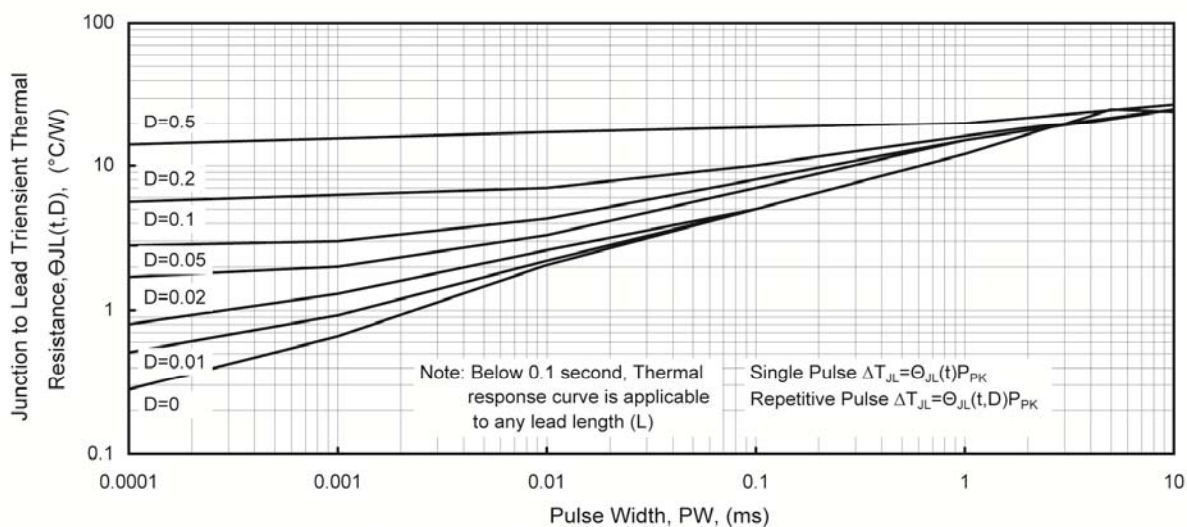


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch